UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,897	01/16/2002	Shi Baw Ch'ng	12144-010001	9091

26161	7590	07/27/2005		EXAMINER

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	EXAMINER
	ALAM, UZMA

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/052,897	CH'NG, SHI BAW
	Examiner	Art Unit	
	Uzma Alam	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2002*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-12* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *16 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

This action is responsive to the application filed on January 16, 2002. Claims 1-12 are

pending. Claims 1-12 represent a system for managing network faults.

Specification

1.   The disclosure is objected to because of the following informalities:

On page 4 of the specification, the heading "Description of the Implementations" should

be replaced with the heading: BRIEF DESCRIPTION OF THE DRAWINGS.

After the listing of the Figures, the disclosure should start with the heading:

DETAILED DESCRIPTION OF THE INVENTION

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3.   Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

4.   As per claim 1, in the limitation "sending traps to a network management station with

respect to fewer than all of the faults that are occurring, based on the results of the information

processing," the part stating "with respect to fewer than all of the faults" is unclear.

5.   As per claim 5, it is unclear whether faults are being sent or not being sent and under

what conditions a fault is sent or not.

6.   As per claim 7, it is unclear when the traps contain information about at least some of the

faults occurring in the entities and when the traps don't contain this information.

7.   As per claim 10, the limitation "network entities that are subject to faults, the faults of at

least some of the network entities having causal relationships to the faults of at least some of the

network entities" is unclear. This limitation is very broad and does not clearly describe how the

network entities and their faults are related and what the sent traps are based upon.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claim Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by

Rangaraian et al. US Patent No. 5,828,830. Rangaraian teaches the invention as claimed

including a method and system for prioritizing and filtering traps from network devices (see

abstract).

10.   As per claim 1, Rangaraian teaches a method comprising

       processing information about network faults that contribute to a failure of a network

element in which the faults are occurring (a system is monitored and faults on the system are

noted by an agent; column 2, lines 6-29; column 3, lines 58-67; column 4, lines 1-4), and

sending traps to a network management station with respect to fewer than all of the faults

that are occurring, based on the results of the information processing (the agent sends traps to the

network manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4,

lines 20-67; column 5, lines 1-13).

11.   As per claim 2, Rangaraian teaches the method of claim 1 in which the information is

processed using a directed acyclic graph (column 4, lines 5-19; column 6, lines 14-33).

12.   As per claim 3, Rangaraian teaches the method of claim 2 in which nodes of the graph

represent entities of the network element (column 3, lines 9-29).

13.   As per claim 7, Rangaraian teaches a method comprising

        at a network management station, receiving traps sent from network elements, the traps

including information about at least some faults occurring in entities of the network elements, the

traps not including information about at least some faults occurring in the entities. reporting the

traps to an operator of the network management station (a system is monitored and faults on the

system are noted by an agent and the agent sends traps to the network manager; column 2, lines

6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

        As per claim 8, Rangaraian teaches the method of claim 7 also including reporting the

traps to an operator of the network management station (the agent sends traps to the network

manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4, lines 20-

67; column 5, lines 1-13).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

15.   Claims 4-6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rangaraian et al. US Patent No. 5,828,830 in view of Rariden et al. US Patent No. 6,292,472.

Rarident teaches the invention as claimed including checking faults in a network (see abstract).

        As per claim 4, Rangaraian teaches the method of claim 1. Rangaraian does not teach in

which the result of the processing comprises information about the causal relationships among at

least some of the faults. Rariden teaches result of the processing comprises information about

the causal relationships among at least some of the faults (column 3, line 9-35).

        It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine determining faults of Rangaraian with determining the causal relationship

of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to

determine the priority of the faults so that the most important faults are handled in a more urgent

manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

16.   As per claim 5, Rangaraian teaches the method of claim 1 in which traps are sent with

respect to faults that have a relationship to other faults and traps are not sent with respect to at

least some of the other faults (traps have different priority levels and some are even discarded;

column 6, lines 46-67; column 7, lines 18-35). Rangaraian does not tech faults having causal

relationships. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine determining faults of Rangaraian with determining the causal relationship

of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to

determine the priority of the faults so that the most important faults are handled in a more urgent

manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

17.   As per claim 6, Rargaraian teaches the method of claim 1. Rargaraian does not teach also

including requesting fault information from an entity that is part of the network element and

which has not triggered a fault notice to determine if there is a fault associated with the network

element. Rariden teaches including requesting fault information from an entity that is part of the

network element and which has not triggered a fault notice to determine if there is a fault

associated with the network element (network elements are polled when no traps are received;

column 3, lines 52-67; column 3, lines 35-49).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine polling faults of Ridden with determining faults of Rangaraian. A person

of ordinary skill in the art would have been motivated to do this to not overlook any faults that

may be occurring in the system.

18.   As per claim 9, Rangaraian teaches the method of claim 7 in which the traps the

information included in the traps represents faults that have a relationship to other faults (traps

have different priority levels and some are even discarded; column 6, lines 46-67; column 7,

lines 18-35). Rangaraian does not tech faults having causal relationships. Rariden teaches that

faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine determining faults of Rangaraian with determining the causal relationship

of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to

determine the priority of the faults so that the most important faults are handled in a more urgent

manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

19.   As per claim 10, Rangaraian teaches Apparatus comprising

a network element having

network entities that are subject to faults, the faults of at least some of the network

entities having relationships to the faults of at least some of the network entities (a system is

monitored and faults on the system are noted by an agent and the agent sends traps to the

network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

a medium bearing information capable of configuring a machine in the network element to send

traps (the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

Rangaraian does not teach based on the causal relationships to a network management station. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

20.   As per claim 11, Rangaraian teaches a medium bearing information capable of configuring a machine to determine faults occurring in entities of a network element (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13). Rangaraian does not teach determining causal relationships to a network management station. Rariden teaches determining the causal relationship between (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

21.   As per claim 12, Rangaraian teaches the medium of claim 11 in which the information

comprises a directed acyclic graph of nodes (column 4, lines 5-19; column 6, lines 14-33).

                                    Conclusion   .

22.   The prior art made of record and not relied upon is considered pertinent to applicant's
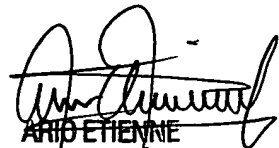
disclosure:

        Bouvier et al. US Patent No. 5,961,594.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Uzma Alam whose telephone number is (571) 272-3995. The

examiner can normally be reached on Monday-Tuesday 9 AM - 5:30 PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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